

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (currently amended): A composition for treating the expression of clinical symptoms in a disease caused by mitochondrial dysfunction, wherein said composition is an orally administrable composition comprising L-arginine as an active ingredient and a nitric oxide-releasing agent selected from the group consisting of glyceryl trinitrate, isosorbide mononitrate, isosorbide dinitrate, molsidomine, and S-nitroso-N-acetyl-DL-penicillamine, wherein said disease caused by mitochondrial dysfunction is MELAS and
wherein said composition further comprises at least one more mitochondrial adjuvant selected from the group consisting of glucose, fructose, mannose, galactose, sucrose, maltose, lactose, starch, citric acid, aconitic acid, isocitric acid, α -ketoglutaric acid, succinic acid, fumaric acid, malic acid, oxaloacetic acid, 2-keto-4-hydroxypropanol, 2,4-dihydroxybutanol, 2-keto-4-hydroxybutanol, 2,4-dihydroxybutyric acid, 2-keto-4-hydroxybutyric acid, aspartates, monoalkyl oxaloacetates, dialkyl oxaloacetates, mono- or di-alkyl citrates, aconitates, isocitrates, α -ketoglutarates, succinates, fumarates, malates, oxaloacetates, Vitamin B₁, Vitamin B₂, Vitamin B₆, Vitamin B₁₂, Vitamin C, Vitamin A, Vitamin D, Vitamin E, Vitamin K, Vitamin H, folic acid, pantothenic acids, L-isoleucine, L-leucine, L-valine, L-lysine, L-methionine, L-phenylalanine, L-threonine, L-tryptophan, L-alanine, L-arginine, L-aspartic acid, L-cysteine, L-glutamic acid, L-histidine, L-proline, L-serine, L-tyrosine, glycine, an inorganic calcium salt, an inorganic sodium salt, an inorganic potassium salt, an inorganic magnesium salt, an inorganic chlorine salt, an inorganic phosphorus salt, an inorganic zinc salt, an inorganic iron salt, an inorganic manganese salt, an inorganic copper

salt, an inorganic chromium salt, an inorganic molybdenum salt, an inorganic selenium salt, an inorganic fluorine salt, an inorganic iodine salt, an organic calcium salt, an organic sodium salt, an organic potassium salt, an organic magnesium salt, an organic chlorine salt, an organic phosphorus salt, an organic zinc salt, an organic iron salt, an organic manganese salt, an organic copper salt, an organic chromium salt, an organic molybdenum salt, an organic selenium salt, an organic fluorine salt, and an organic iodine salt.

Claim 2 (previously presented): The composition of Claim 1, which is orally administered in an amount of from 1 to 30 g a day per adult in terms of L-arginine.

Claim 3 (previously presented): The composition of Claim 1, wherein said disease caused by mitochondrial dysfunction is a cerebral apoplexy-like episode of MELAS or a warning symptom thereof.

Claim 4 (previously presented): The composition of Claim 3, wherein said warning symptom of a cerebral apoplexy-like episode is scintillating scotoma.

Claim 5 (canceled).

Claim 6 (previously presented): The composition of Claim 1, which comprises L-arginine in the free form and L-arginine in its monohydrochloride form in combination.

Claim 7 (currently amended): A method for treating the expression of a clinical ~~symptoms~~ symptom in a disease caused by mitochondrial dysfunction MELAS, comprising

orally administering to a subject in need thereof an effective amount of a composition comprising L-arginine as an active ingredient.

Claim 8 (previously presented): The method of Claim 7, wherein said composition is administered in an amount of from 1 to 30 g a day per adult in terms of L-arginine.

Claim 9 (previously presented): The method of Claim 7, wherein said disease caused by mitochondrial dysfunction is a cerebral apoplexy-like episode of MELAS or a warning symptom thereof.

Claim 10 (previously presented): The method of Claim 9, wherein said warning symptom of a cerebral apoplexy-like episode is scintillating scotoma.

Claim 11 (currently amended): The method of Claim 7, wherein said composition further comprises another mitochondrial function adjuvant selected from the group consisting of glucose, fructose, mannose, galactose, sucrose, maltose, lactose, starch, citric acid, aconitic acid, isocitric acid, α -ketoglutaric acid, succinic acid, fumaric acid, malic acid, oxaloacetic acid, 2-keto-4-hydroxypropanol, 2,4-dihydroxybutanol, 2-keto-4-hydroxybutanol, 2,4-dihydroxybutyric acid, 2-keto-4-hydroxybutyric acid, aspartates, monoalkyl oxaloacetates, dialkyl oxaloacetates, mono- or di-alkyl citrates, aconitates, isocitrates, α -ketoglutarates, succinates, fumarates, malates, oxaloacetates, Vitamin B₁, Vitamin B₂, Vitamin B₆, Vitamin B₁₂, Vitamin C, Vitamin A, Vitamin D, Vitamin E, Vitamin K, Vitamin H, folic acid, pantothenic acids, L-isoleucine, L-leucine, L-valine, L-lysine, L-methionine, L-phenylalanine, L-threonine, L-tryptophan, L-alanine, L-arginine, L-aspartic acid, L-cysteine,

L-glutamic acid, L-histidine, L-proline, L-serine, L-tyrosine, glycine, an inorganic calcium salt, an inorganic sodium salt, an inorganic potassium salt, an inorganic magnesium salt, an inorganic chlorine salt, an inorganic phosphorus salt, an inorganic zinc salt, an inorganic iron salt, an inorganic manganese salt, an inorganic copper salt, an inorganic chromium salt, an inorganic molybdenum salt, an inorganic selenium salt, an inorganic fluorine salt, an inorganic iodine salt, an organic calcium salt, an organic sodium salt, an organic potassium salt, an organic magnesium salt, an organic chlorine salt, an organic phosphorus salt, an organic zinc salt, an organic iron salt, an organic manganese salt, an organic copper salt, an organic chromium salt, an organic molybdenum salt, an organic selenium salt, an organic fluorine salt, and an organic iodine salt.

Claim 12 (canceled).

Claim 13 (previously presented): The method of Claim 7, wherein said composition comprises L-arginine in the free form and L-arginine in its monohydrochloride form in combination.

Claim 14 (currently amended): A method for treating ~~a disease caused by mitochondrial dysfunction~~ MELAS, comprising orally administering to a subject in need thereof an effective amount of a composition comprising L-arginine as an active ingredient.

Claim 15 (previously presented): The method of Claim 14, wherein said composition is administered in an amount of from 1 to 30 g a day per adult in terms of L-arginine.

Claim 16 (previously presented): The method of Claim 14, wherein said disease caused by mitochondrial dysfunction is a cerebral apoplexy-like episode of MELAS or a warning symptom thereof.

Claim 17 (previously presented): The method of Claim 16, wherein said warning symptom of a cerebral apoplexy-like episode is scintillating scotoma.

Claim 18 (currently amended): The method of Claim 14, wherein said composition further comprises another mitochondrial function adjuvant selected from the group consisting of glucose, fructose, mannose, galactose, sucrose, maltose, lactose, starch, citric acid, aconitic acid, isocitric acid, α -ketoglutaric acid, succinic acid, fumaric acid, malic acid, oxaloacetic acid, 2-keto-4-hydroxypropanol, 2,4-dihydroxybutanol, 2-keto-4-hydroxybutanol, 2,4-dihydroxybutyric acid, 2-keto-4-hydroxybutyric acid, aspartates, monoalkyl oxaloacetates, dialkyl oxaloacetates, mono- or di-alkyl citrates, aconitates, isocitrates, α -ketoglutarates, succinates, fumarates, malates, oxaloacetates, Vitamin B₁, Vitamin B₂, Vitamin B₆, Vitamin B₁₂, Vitamin C, Vitamin A, Vitamin D, Vitamin E, Vitamin K, Vitamin H, folic acid, pantothenic acids, L-isoleucine, L-leucine, L-valine, L-lysine, L-methionine, L-phenylalanine, L-threonine, L-tryptophan, L-alanine, L-arginine, L-aspartic acid, L-cysteine, L-glutamic acid, L-histidine, L-proline, L-serine, L-tyrosine, glycine, an inorganic calcium salt, an inorganic sodium salt, an inorganic potassium salt, an inorganic magnesium salt, an inorganic chlorine salt, an inorganic phosphorus salt, an inorganic zinc salt, an inorganic iron salt, an inorganic manganese salt, an inorganic copper salt, an inorganic chromium salt, an inorganic molybdenum salt, an inorganic selenium salt, an inorganic fluorine salt, an inorganic iodine salt, an organic calcium salt, an organic sodium salt, an organic potassium

salt, an organic magnesium salt, an organic chlorine salt, an organic phosphorus salt, an organic zinc salt, an organic iron salt, an organic manganese salt, an organic copper salt, an organic chromium salt, an organic molybdenum salt, an organic selenium salt, an organic fluorine salt, and an organic iodine salt.

Claim 19 (canceled).

Claim 20 (previously presented): The method of Claim 14, wherein said composition comprises L-arginine in the free form and L-arginine in its monohydrochloride form in combination.